

Aluminum-CNF Lightweight Radiator Components, Phase I

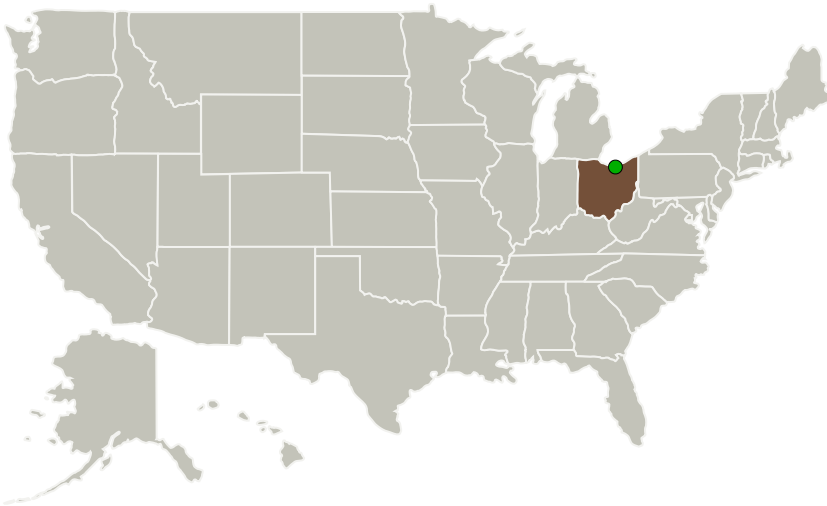
Completed Technology Project (2011 - 2011)



Project Introduction

This proposal relates to a new materials concept for an aluminum-carbon nanofiber composite, high thermal conductivity ultra lightweight material that will form the basis for robust, lightweight deployable metallic radiator designs. Specifically, this program will result in availability of high thermal conductivity, low coefficient of expansion, extremely low density carbon nanotube-reinforced aluminum composites suitable for use in radiator panel facesheets, closeouts, supports and joints.

Primary U.S. Work Locations and Key Partners



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Organizations Performing Work	Role	Type	Location
Powdermet, Inc.	Lead Organization	Industry	Euclid, Ohio
● Glenn Research Center(GRC)	Supporting Organization	NASA Center	Cleveland, Ohio

Primary U.S. Work Locations

Ohio

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Project Transitions

 **February 2011:** Project Start

 **September 2011:** Closed out

Closeout Documentation:

- Final Summary Chart(<https://techport.nasa.gov/file/137993>)

Organizational Responsibility

Responsible Mission Directorate:

Space Technology Mission Directorate (STMD)

Lead Organization:

Powdermet, Inc.

Responsible Program:

Small Business Innovation Research/Small Business Tech Transfer

Project Management

Program Director:

Jason L Kessler

Program Manager:

Carlos Torrez

Principal Investigator:

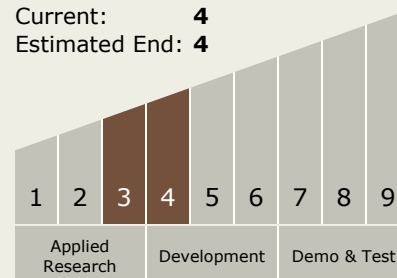
Brian Doud

Technology Maturity (TRL)

Start: 3

Current: 4

Estimated End: 4



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Technology Areas

Primary:

- TX14 Thermal Management Systems
 - └ TX14.2 Thermal Control Components and Systems
 - └ TX14.2.3 Heat Rejection and Storage

Target Destinations

The Sun, Earth, The Moon, Mars, Others Inside the Solar System, Outside the Solar System